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**polyEpoxy resin moulding material for sealing electronic parts - comprises polyepoxy resin, silicon nitride, globular silica, and opt. crosslinking agents, hardeners, curing agents etc.**
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| JP 1038424 | A | 19890208 | JP 87193927 | A | 19870803 | 198912 | B |
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Abstract (Basic): JP 1038424 A
Epoxy resin moulding materials comprise epoxy resins, silicon nitride and globular silica and opt. crosslinking agents, hardeners, curing accelerators, mould-releasing agents, colouring agents, couplers and fillers.
Silicon nitride and globular silica are pref. as fillers and have pref. an average granular dia. of 1-50 microns. Pref. silicon nitride and globular silica are surface-treated with organopolysiloxane, improving the dispersibility. Phosphorus type and/or tert.amine type curing accelerators are pref. used.
USE/ADVANTAGE - The epoxy resin moulding materials are used mainly for sealing of electric and electronic parts. The moulding materials have excellent mouldability, strength and cracking resistant.
In an example, 25 pts.wt. of epoxy resin (epoxy equiv. 220, softening pt. 80 deg.C), 10 pts.wt. of novolak phenol resin (OH equiv. 104, softening pt. 87 deg.C), 0.5 pts. wt. of triphenylphosphine, 0.5 pts. wt. of carnauba wax, 0.5 pts.wt. of carbon black, 0.5 pts. wt. of coupler, 59 pts.wt. of a silicon nitride having an average granular dia. of 28 microns and 3 pts. wt. of globular silica (20 microns) and 1 pt.wt. of an organopolysiloxane were blended and kneaded. Hybrid Ics were sealed with the moulding material obtd. above at a mould temp. of 175 deg.C at 50 kg/cm2 for a curing time of 3 mins. The moulding material showed good mouldability. None of 40 mouldings showed any problems when tested at -65 deg.C to 150 deg.C for 2000 cycles.
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Derwent Class: A21; A85; L03
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International Patent Class (Additional): C08G-059/18; C08K-003/00; C08K-003/34; C08K-009/06; C08K-003-28; C08K-003-36